

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An apparatus for ~~storing~~ establishing and outputting at least one ~~sequence of information, said information being formed from a succession of information items~~ in which an artistic or rational link is ~~considered to exist between at least some pairs of adjacent~~ ~~items~~ reflected in said succession of information items, said apparatus comprising:

input means for receiving ~~said a sequence~~ of information comprising a stream of ~~information items in which an initial artistic or rational link is considered to exist between at~~ least some pairs of adjacent items;

~~storage means for storing said information;~~

segmentation means for recovering information items from said stream of information ~~items segmenting said sequence of information into individually accessible segments, each~~ ~~corresponding to a respective information item,~~ in response to segmentation data indicating end limits of said information items;

means for storing said recovered information items;

means for indexing said recovered information items with distance information indicative ~~of relative separation between information items in the information stream wherein said storage~~ ~~means outputs said segments in a sequence corresponding to said succession of information~~ ~~items;~~ and

~~producing~~ means for analyzing said distance information to select an information item to be entered into said succession to be established on the basis of an earlier information item in said succession and a separation ~~automatically producing similarity relations between said earlier~~

~~item and the selected item~~ the segments in terms of mutual closeness in which the segments initially occurred in the received sequence of information.

2. (Previously Presented) The apparatus according to claim 1, wherein the received sequence of information is in a data stream form, said segmentation means being responsive to time information in said segmentation data indicating times of occurrence of said end limits of said information items for automatically dividing the stream in order to extract said segments.

3. (Previously Presented) The apparatus according to claim 1, wherein said segmentation means is adapted to receive the segmentation data via a second input separate from said information to be stored.

4. (Previously Presented) The apparatus according to claim 3, wherein said segmentations means is adapted to extract said segmentation data from a website associated with a source of said sequence of information.

5. (Previously Presented) The apparatus according to claim 1, wherein said segmentation means is adapted to extract said segmentation data from said sequence of information.

6. (Previously Presented) The apparatus according to claim 1, wherein said input means is adapted to receive said sequence of information in the form of audio data, and wherein said segmentation means is capable of forming segments, each corresponding to a music title in said sequence of information.

7. (Previously Presented) The apparatus according to claim 6, wherein said input means is adapted to receive said audio data from a radio station sending a sequence of music titles in accordance with a music program.

8. (Previously Presented) The apparatus according to claim 6, wherein said input means is adapted to receive said audio data from music compilations selected and entered by a user.

9. (Previously Presented) The apparatus according to claim 8, wherein said music compilation is in the form of a command to download from a server selected music titles in an order corresponding to a selected succession.

10. (Previously Presented) The apparatus according to claim 1, further comprising:
identification means connectable to a source of identification data identifying information items in said sequence of information, said identification means extracting at least some of said identification data to form an identifier, and

combining means for combining with a given segment an identifier corresponding thereto,

said storage means further being arranged to store said identifier corresponding to said segment.

11. (Previously Presented) The apparatus according to claim 10, wherein said identifier includes data indicative of an attribute under which respective groups of said segments can be generically identified and classified.

12. (Previously Presented) The apparatus according to claim 11, wherein said attribute corresponds to at least one type of music under which a music title can be classified.

13. (Previously Presented) The apparatus according to claim 12, wherein said identifier includes artist data indicative of an artist associated with the corresponding music title, and said apparatus further comprises deriving means for deriving at least one said type of music based on said artist data.

14. (Previously Presented) The apparatus according to claim 1, further comprising similarity analyzing means for automatically analyzing similarity relations between stored segments in terms of their closeness in said sequence of stored segments.

15. (Previously Presented) The apparatus according to claim 1, wherein said producing means produces said similarity relations by producing, for each segment corresponding to an information item considered in a given stored sequence, a similarity relation representation expressing a distance between that information item and other stored information items.

16. (Previously Presented) The apparatus according to claim 15, wherein said similarity relation representation contains, for each said other information item, a closeness value

determined between pairs formed by said information item considered and said other information item.

17. (Previously Presented) The apparatus according to claim 16, wherein said producing means is arranged to calculate said closeness value for said information item considered by attributing a first closeness value each time said other information item appears just before or just after in said sequence,

said first closeness value being cumulated over said sequence to yield a cumulated value indicating a closeness of said pairs of information items.

18. (Previously Presented) The apparatus according to claim 17, wherein said producing means is further arranged to attribute a second closeness value, smaller than said first closeness value, each time said other information item is separated from said information considered by m separating information items, where m is an upper bounded number,

said first and second closeness values being cumulated over said sequence to yield a cumulated value indicating the closeness of said pairs of information items.

19. (Previously Presented) The apparatus according to claim 18, wherein said number m of separating information items is equal to one.

20. (Previously Presented) The apparatus according to claim 1, wherein said apparatus further comprises a music program generating means for building a sequence of information items from said stored segments.

21. (Previously Presented) The apparatus according to claim 20, wherein said program generating means is capable of building said sequence of information items in response to user preferences expressed through user inputs.

22. (Previously Presented) The apparatus according to claim 20, wherein said program generating means is capable of building said sequence of information items in response to similarity relations between stored segments in terms of their closeness values in said sequence of stored segments, in which information items are concatenated by taking their closeness values into account.

23. (Previously Presented) The apparatus according to claim 21, wherein said program generating means is responsive to a user input expressing a like or dislike, associated to at least some information items in said succession of information items, to create a sequence of information items in which said disliked information items are removed and liked information items are emphasized.

24. (Previously Presented) The apparatus according to claims 22, wherein said program generating means is further responsive to said similarity relations to create a sequence of information items in which information items close to disliked information items are de-emphasized and/or in which information items close to liked information items are emphasized.

25. (Previously Presented) The apparatus according to claim 20, wherein said program generating means is responsive to a selected attribute of said information items said selected attribute being entered through a corresponding user input, to create a sequence of information items containing at least a preponderance of information items falling under said selected attribute.

26. (Currently Amended) The apparatus according to claim 25, wherein said program generating means is arranged to create a sequence of information items by taking into account said selected attributes associated to said information items, and

wherein said program generating means is further responsive to a discovery parameter entered through a user input ~~expressing a degree of accepted departure from said at least a preponderance of information items falling under said selected attribute, whereby said discovery parameter can be set to a first value in which said preponderance is maximal, possibly total, and to a second value, in which indicating a degree of closeness of said sequence also contains a certain proportion of information items not falling under to said selected attribute.~~

27. (Canceled)

28. (Previously Presented) The apparatus according to claim 26, wherein said program generating means is further responsive to said similarity relations between the stored segments in terms of their closeness in said sequence of stored segments, such that said information items do not fall under said selected attribute and are entered in said created sequence when said

information items have a predetermined degree of closeness, as determined by said similarity relations, with an adjacent information item of said sequence.

29. (Previously Presented) The apparatus according to claim 20, wherein said program generating means comprises means for labeling and storing said created sequences as objects which can be selectively exported outside said apparatus.

30. (Previously Presented) The apparatus according to claim 29, further comprising importing means for importing said created sequences.

31. (Previously Presented) The apparatus according to claim 29, wherein said apparatus is connected to a playback means for receiving said segments of a selected created sequence.

32. (Previously Presented) The apparatus according to claim 1, wherein said apparatus produces at least one preference, said preference being a user preference comprised of the succession of information items produced by taking into account feedback from said user, or a generic preference comprised of a sequence.

33. (Currently Amended) A method ~~of storing at least one sequence of information, said information being formed from~~ for establishing and outputting a succession of information items in which an artistic or rational link is ~~considered to exist between at least some pairs of adjacent items~~ reflected in said succession of information items, said method comprising the steps of:

receiving said a sequence of information comprising a stream of information items in which an initial artistic or rational link is considered to exist between at least some pairs of adjacent items;

storing said information;

recovering segmenting said sequence of information into individually accessible segments, each corresponding to a respective information items from said stream of information items[[,]] in response to segmentation data indicating end limits of said information items;

storing said recovered information items;

indexing said recovered said stored segments being output in a sequence corresponding to said succession of information items with distance information indicative of relative separation between information items in the information stream; and

analyzing said distance automatically producing similarity relations between the segments in terms of mutual closeness in which the segments initially occurred in the received sequence of information to select an information item to be entered into said succession to be established on the basis of an earlier information item in said succession and a separation between said earlier item and the selected item of information.

34. (Previously Presented) The method according to claim 33, wherein the received sequence of information is in a data stream form, said segmentation being performed in response to time information in said segmentation data indicating times of occurrence of said end limits of said information items for automatically dividing the stream in order to extract said segments.

35. (Previously Presented) The method according to claim 33, wherein said segmentation data is extracted from a website associated with a source of said sequence of information.

36. (Previously Presented) The method according to claim 33, wherein said segmentation data is extracted from said sequence of information.

37. (Previously Presented) The method according to claim 33, wherein said sequence of information is received in the form of audio data, and wherein said segmentation serves to form segments, each corresponding to a music title in said sequence of information.

38. (Previously Presented) The method according to claim 37, wherein said audio data is received from a radio station sending a sequence of music titles in accordance with a music program.

39. (Previously Presented) The method according to claim 33, further comprising the steps of:

identifying from a source of identification data, information items in said sequence of information, said identifying step extracting at least some of said identification data to form an identifier, and

combining with a given segment an identifier corresponding thereto,
said identifier being stored in accordance with said segment.

40. (Previously Presented) The method according to claim 39, wherein said identifier includes data indicative of an attribute under which respective groups of said segments can be generically identified and classified.

41. (Previously Presented) The method according to claim 40, wherein said attribute corresponds to at least one type of music under which a music title can be classified.

42. (Previously Presented) The method according to claim 41, wherein said identifier includes artist data indicative of an artist associated with the corresponding music title, and said method further comprises a deriving step for deriving at least one said type of music based on said artist data.

43. (Previously Presented) The method according to claim 33, further comprising the step of automatically analyzing similarity relations between stored segments in terms of their closeness in said sequence of stored segments.

44. (Previously Presented) The method according to claim 33, wherein said producing step produces said similarity relations by producing, for each segment corresponding to an information item considered in a given stored sequence, a similarity relation representation expressing a distance between that information item and other stored information items.

45. (Previously Presented) The method according to claim 44, wherein said similarity relation representation contains, for each said other information item, a closeness value

determined between pairs formed by said information item considered and said other information item.

46. (Previously Presented) The method according to claim 44, wherein said producing step involves calculating said closeness value for said information item considered by attributing a first closeness value each time said other information item appears just before or just after in said sequence,

said first closeness value being cumulated over said sequence to yield a cumulated value indicating a closeness of said pairs of information items.

47. (Previously Presented) The method according to claim 46, wherein said producing step is further carried out to attribute a second closeness value, smaller than said first closeness value, each time said other information item is separated from said information considered by m separating information items, where m is an upper bounded number,

said first and second closeness values being cumulated over said sequence to yield a cumulated value indicating the closeness of said pairs of information items.

48. (Previously Presented) The method according to claim 33, further comprising the step of generating a music program by building a sequence of information items from said stored segments.

49. (Previously Presented) The method according to claim 48, wherein said program generating step involves building said sequence of information items in response to user preferences expressed through user inputs.

50. (Previously Presented) The method according to claim 48, wherein said program generating step involves building said sequence of information items in response to said similarity relations between stored segments in terms of their closeness values in said sequence of stored segments, in which information items are concatenated by taking their closeness values into account.

51. (Previously Presented) The method according to claim 49, wherein said program generating step is carried out by taking into account a user input expressing a like or dislike, associated to at least some information items in said succession of information items, to create a sequence of information items in which said disliked information items are removed and liked information items are emphasized.

52. (Previously Presented) The method according to claim 50, wherein said program generating step is further carried out by taking into account said similarity relations to create a sequence of information items in which information items close to disliked information items are de-emphasized and/or in which information items close to liked information items are emphasized.

53. (Previously Presented) The method according to claim 49, wherein said program generating step is carried out by taking into account a selected attribute of said information items, said selected attribute being entered through a corresponding user input, to create a sequence of information items containing at least a preponderance of information items falling under said selected attribute.

54. (Currently Amended) The method according to claim 53, wherein said program generating step is carried out by creating a sequence of information items and taking into account said selected attributes associated to said information items, and wherein said program generating step is further carried out by taking into account a discovery parameter entered through a user input ~~expressing a degree of accepted departure from said at least a preponderance of information items falling under said selected attribute, whereby said discovery parameter can be set to a first value in which said preponderance is maximal, possibly total, and to a second value, in which indicating a degree of closeness of said sequence also contains a certain~~ proportion of information items not falling under to said selected attribute.

55. (Previously Presented) The method according to claim 54, wherein said program generating step is further carried out by taking into account said similarity relations between the stored segments in terms of their closeness in said sequence of stored segments, such that said information items do not fall under said selected attribute and are entered in said created sequence when said information items have a predetermined degree of closeness, as determined by said similarity relations, with an adjacent information item of said sequence.

56. (Previously Presented) The method according to claim 49, wherein said program generating step involves labeling and storing said created sequences as objects which can be selectively exported.

57. (Previously Presented) The method according to claim 56, further comprising the step of importing said created sequences.

58. (Currently Amended) ~~An apparatus for storing at least one sequence of information, said information being formed from establishing and outputting a succession of information items in which an artistic or rational link is considered to exist between at least some pairs of adjacent items reflected in said succession of information items, said apparatus comprising:~~

~~input means for receiving said sequence of information~~ a stream of information items in which an initial artistic or rational link is considered to exist between at least some pairs of adjacent items;

~~storage means for storing said~~ stream of information items; and

~~means for indexing said stream of information items with distance information indicative of relative separation between information items in the information stream; and~~

~~means for similarity-analyzing means for automatically producing similarity relations between said information items in terms of the relative closeness of the information items in said sequence as received~~ said distance information to select an information item to be entered into said succession to be established on the basis of an earlier information item in said succession and a separation between said earlier item and the selected item of information.

59. (Currently Amended) A method for ~~storing at least one sequence of information, said information being formed from~~ establishing and outputting a succession of information items in which an artistic or rational link is ~~considered to exist between at least some pairs of adjacent items~~ reflected in said succession of information items, said method comprising the steps of:

receiving said ~~a stream~~ sequence of information items in which an initial artistic or rational link is considered to exist between at least some pairs of adjacent items;

storing said stream of information items; and

indexing said recovered information items with distance information indicative of relative separation between information items in the information stream so that said distance information can be analyzed to select an information item to be entered into said succession to be established on the basis of an earlier ~~automatically producing similarity relations between said information item in said succession and a separation between said earlier item and the selected items in terms of the relative closeness of the information items in said sequence as received~~ item of information.

60. (New) An apparatus for establishing and outputting a succession of music titles in which an artistic or rational link is reflected in said succession of information items, said apparatus comprising:

input means for receiving a stream of audio signals comprising a succession of music titles/pieces in which an initial artistic or rational link is considered to exist between at least some pairs of adjacent music titles/pieces;

segmentation means for recovering music titles/pieces from said stream of audio signals in response to segmentation data indicating end limits of said music titles/pieces;

means for storing said recovered music titles/pieces;

means for indexing said recovered music titles/pieces with distance information indicative of relative separation between music titles/pieces in said stream; and

means for analyzing said distance information to select a music title/piece to be entered into said succession to be established on the basis of an earlier music title/piece in said succession and a separation between said earlier music title/piece and the selected music title/piece.